IN THE CLAIMS:

Please amend the claims as follows:

1-17. (Cancelled)

18. (New) A fuel cell comprising:

a fuel cell stack comprising a plurality of stacked unit cells, each unit cell including a pair of electrodes, an electrolyte membrane and a plurality of stacked plates, each stacked plate having a plurality of reaction gas channels transporting a reaction gas and a plurality of heat medium channels transporting a heat medium in the fuel cell stack,

wherein an inlet header for at least one of the plurality of reaction gas channels is disposed to face an inlet header or an outlet header for the plurality of heat medium channels.

19. (New) A fuel cell according to claim 18, wherein the inlet header for the plurality of reaction gas channels is maintained at a temperature of the dew point of the reaction gas or greater by heat transfer from the heat medium during normal operation.

20. (New) A fuel cell comprising:

a fuel cell stack comprising a plurality of stacked plates, each stacked plate having a plurality of reaction gas channels transporting a reaction gas and a plurality of heat medium channels transporting a heat medium in the fuel cell stack,

wherein the inlet header for one of the plurality of the reaction gas channels faces the inlet header for the other of the plurality of the reaction gas channels.

21. (New) A fuel cell according to claim 20, wherein a temperature of reaction gas at one of the inlet headers for the plurality of the reaction gas channels is set equal to or higher than a temperature of the dew point of the reaction gas at the other inlet headers for the plurality of the reaction gas channels.

22. (New) A fuel cell comprising:

a fuel cell stack comprising a plurality of stacked plates, each stacked plate having a plurality of reaction gas channels transporting a reaction gas and a plurality of heat medium channels transporting a heat medium,

wherein the plurality of reaction gas channels has a first inlet header for a first reaction gas and a second inlet header for a second reaction gas,

the plurality of heat medium channels has an inlet header supplying the heat medium and an outlet header discharging the heat medium, and

the first inlet header and the second inlet header for the plurality of the reaction gas channels faces the inlet header or the outlet header for the plurality of the heat medium.

23. (New) A fuel cell according to claim 22, wherein the first reaction gas of the plurality of reaction gas channels and the second reaction gas of the plurality of reaction gas channels flow in a direction parallel to each other from top to bottom in the direction of gravity, and

wherein the first reaction gas of the plurality of reaction gas channels and the second reaction gas of the plurality of reaction gas channels flow in a direction parallel or anti-parallel to the heat medium transported in the plurality of heat medium channels.

24. (New) A fuel cell according to claim 22,

further comprising:

an anode electrode section; and

a cathode electrode section;

wherein the plurality of reaction gas channels and the plurality of heat medium channels are shaped substantially straight and facing the anode electrode section or the cathode electrode section.

25. (New) A fuel cell according to claim 23, wherein the reaction gas comprises a fuel gas and an oxidant gas, and during normal operation, a dew point of at least one of the reaction gases at the inlet header of the plurality of reaction gas channels is less than or equal to a temperature of the heat medium at the inlet header of the plurality of the heat medium channels when the reaction gases and the heat medium flow in a direction parallel to each other, and

a dew point of at least one of the reaction gases at the inlet header of the plurality of reaction gas channels is less than or equal to a temperature of the heat medium at the outlet header of the plurality of the heat medium channels when the reaction gases and the heat medium flow in a direction anti-parallel to each other.

26. (New) A fuel cell according to claim 25, wherein the plurality of reaction gas channels have an outlet header for discharging the reaction gases, during normal operation, a dew point for the discharged reaction gases at the outlet header of the plurality of reaction gas channels is greater than or equal to a temperature of the heat medium at the outlet header of the

plurality of the heat medium channels when the reaction gases and the heat medium flow in the direction parallel to each other, and

a dew point for the discharged reaction gases at the outlet header of the plurality of reaction gas channels is greater than or equal to a temperature of the heat medium at the inlet header of the plurality of the heat medium channels when at least one of the reaction gases and the heat medium flow in the direction anti-parallel to each other.

27. (New) A fuel cell according to claim 20, wherein the heat medium is supplied to flow to an area facing an area downstream from the inlet header of the plurality of reaction gas channels, and

the heat medium heat-exchanged at an area facing the stacked electrode section is supplied to flow at an area facing the inlet header of the plurality of reaction gas channels.

28. (New) A fuel cell according to claim 27, wherein the reaction gas comprises a fuel gas and an oxidant gas, and during normal operation, a dew point for at least one of the reaction gases supplied to the fuel cell is more than or equal to a temperature of the heat medium at an inlet header of the plurality of the heat medium channels.

29. (New) A fuel cell according to claim 18, wherein a flow resistance generation section is disposed at the inlet header of the plurality of reaction gas channels.

30. (New) A fuel cell according to claim 29, wherein the flow resistance generation section is a nozzle hole having a tapered shape.

31. (New) A fuel cell according to claim 18, wherein an oxidant humidifier and a fuel humidifier are connected to the fuel cell and the heat medium discharged from the outlet header of the plurality of the heat medium channels is heat-exchanged in the oxidant humidifier and the fuel humidifier.

32. (New) A fuel cell according to claim 18, wherein the fuel cell further comprises:

an oxidant humidifier for humidifying the oxidant before supplied to the fuel cell, a fuel humidifier for humidifying the fuel gas before supplied to the fuel cell,

wherein the heat medium discharged from the fuel cell is heat-exchanged in the oxidant humidifier and the fuel humidifier,

a total heat exchanger, wherein a total heat exchange is carried out between the reaction gas discharged from the fuel cell and the reaction gas before supplied to the fuel humidifier, and

an heat exchanger for controlling the temperature of the heat medium.

33. (New) A fuel cell according to claim 32, wherein the heat medium from the fuel cell is first transported to the heat exchanger for controlling the temperature of the heat medium, and then the heat medium is transported to the oxidant humidifier and then to the fuel humidifier successively when the reaction gases and the heat medium flow in the direction parallel to each other.

34. (New) A fuel cell according to claim 32, wherein the heat medium from the fuel cell is first transported to the oxidant humidifier, and then the heat medium is transported to the

fuel humidifier and then to the heat exchanger for controlling the temperature of the heat medium successively, when the reaction gas and the heat medium flow in a direction anti-parallel to each other.